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Medical Encyclopedia

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Fungal nail infection

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Illustrations



[Nail infection,
candidal](#)

Alternative names

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Nails - fungal infection; Onychomycosis; Infection - fungal - nails

Definition

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This disease is an infection of the nails by a fungus.

Causes and risks

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The body normally hosts a variety of microorganisms, including bacteria and fungi. Some of these are useful to the body. Others may multiply rapidly and form infections. Fungi can live on the dead tissues of the hair, nails, and outer skin layers.

Fungal infections include mold-like fungi (dermatophytes, causing [tinea infections](#)), and yeast-like fungi (such as [Candida](#)). Tinea infections include [athlete's foot](#), [jock itch](#), [ringworm](#), and [tinea capitis](#). Candida (yeast infections) include [diaper rash](#), [oral thrush](#), [cutaneous candidiasis](#), and some cases of [genital rashes](#).

Fungal nail infections are most often seen in adults. They often follow fungal infection of the feet. Fungal nail infections may be difficult to treat and may recur often. Toenails are affected more often than fingernails.

Individuals who frequent public swimming pools, gyms, or shower rooms; and people who perspire a great deal commonly have tinea infections because the fungi that cause them thrive in warm, moist areas. Susceptibility to fungal infection is increased by occlusive (closed in) footwear, prolonged moist skin, and minor skin or nail injuries.

Prevention [Return to top](#)

Good general health and hygiene help to prevent fungal infections. Keep the skin clean and dry. Take proper care of the nails (see treatment). Wash and dry the hands thoroughly after contact with any fungal infection.

Symptoms [Return to top](#)

- Nail changes on one or more nails (usually toenails)
 - Brittle
 - Discolored
 - Loss of luster and shine
 - Thickening
 - Distorted nail shape
 - Crumbling of the nail
 - Debris under the nail
 - Loose (detached) nail

Signs and tests [Return to top](#)

Diagnosis is suspected by the appearance of the nails.

Scraping of the nail with a culture or an examination under a microscope will demonstrate the organism (confirming the diagnosis), and allow an identification of the type of fungus.

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Topical treatment is generally of no help in treating onychomycosis. Recently, however, a nail lacquer (called Penlac) has been marketed and may be helpful in some patients.

The oral medications -- Sporanox (itraconazole), or Lamisil (terbinafine) -- may be taken for several months. While these medicines may clear the fungus in about half of all patients, they may be associated with numerous side effects.

Nails grow slowly, so even if treatment is successful, a new, clearer nail may take up to one year to replace the old nail.

Prognosis [Return to top](#)

Fungal nail infections may be difficult to treat and may become a reservoir for fungal organisms, causing their recurrence in the skin or nails. The fungal nail infection is cured by the growth of new, non-infected nails. Even with

successful treatment, a relapse is common.

Complications [Return to top](#)

- Permanent damage to the nails
- Secondary skin infections, including [paronychia](#)
- Recurrent fungal infections of the nails or other parts of the body

Call your health care provider if [Return to top](#)

Call your health care provider if you experience persistent fungal nail infections, or if the fingers become painful, red, or drain pus.

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Updated by: Michael Lehrer, M.D., Department of Dermatology, University of Pennsylvania Medical Center, Philadelphia, PA. Review provided by VeriMed Healthcare Network.



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